



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/280,618 | 03/29/1999 | MAHDI S. CHAMBERS | CHAMBERS-1 | 6099 |

7590 06/21/2004
JOHN E. CURTIN
HARNES, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER

GEORGE, KEITH M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2663

DATE MAILED: 06/21/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/280,618

Applicant(s)

CHAMBERS, MAHDI S.

Examiner

Keith M. George

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-9, 11-18 and 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claims 1 and 40 refer to controlling a second switch serving a destination location to direct traffic data from the origin location to said destination associated with said first or second traffic type: the second switch configured to direct traffic data of the first traffic type and the second traffic type. As understood from the specification, and especially figure 1, this claim limitation does not appear to be supported. Referencing figure 1, the second switch associated with the first or second traffic type would appear to be either the destination EO (118) if the traffic is non-IP based voice traffic and the RAS (122) if the traffic is IP based traffic. These switches appear to be completely independent and perform completely different functions. A second switch configured to direct traffic data of the first traffic type (non-IP based voice traffic) and the second traffic type (IP based traffic) does not appear in the drawing.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 11-17, 19, 23-29, 32-37 and 41 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Gregory et al., U.S. Patent 6,289,097, hereinafter Gregory.

5. Referring to claims 1, 19, 23, 29 and 41, Gregory teaches a method and system for a redirect repeater providing network access including, as shown in figure 1, a DLC (14) (switch serving the origin location), a redirect repeater (16) and a public switch or PSTN (18) (switch serving the destination location). The redirect repeater receives signals from a T1 line of the DLC employing the GR-303 interface (receiving signaling data from a first switch serving the origin location) (column 4, lines 15-17). The redirect repeater delays messages until it determines whether the telephone call is carrying computer data to a computer network or the telephone call is an ordinary voice telephone call to be carried by the PSTN (determine the traffic type from the signaling data). For ordinary voice telephone calls carried by the PSTN, the redirect repeater simply passes through or repeats messages from the telephone subscriber to the PSTN or public switch. For telephone calls to the computer network, the redirect repeater establishes a connection and redirects messages from the telephone subscriber to the computer network (direct signaling data to said destination location associated with the first or second

Art Unit: 2663

traffic type) (column 4, lines 37-47). Inherently, the second switch serving either the PSTN or the computer network will direct the traffic from the origin to the correct destination.

6. Referring to claim 2, Gregory teaches the method described in reference to claim 1 above and also clearly teaches that the redirect signal can be supported by a common specification such as the Bellcore GR-303 specification and that possible digit strings for the redirect signal may include: seven digit local telephone numbers, special combination of DTMF *, # and digits, ten digit national numbers or more than ten digit numbers. All of these signaling methods include more than one message; therefore they all contain an initial message and messages following the initial message.

7. Referring to claims 3, 4 and 24-28, Gregory teaches the method described in reference to claims 1 and 23 above also clearly teaches that several methods can be used to determine whether calls should be redirected to the computer network. The redirect repeater maintains an access table identifying telephone numbers that are provided telephone service through the redirect repeater (matching called directory numbers with an entry of a predetermined table) (column 9, lines 24-30).

8. Referring to claims 11, 12, 32 and 33, Gregory teaches the method described in reference to claims 1 and 23 above and clearly teaches in figures 1 and 3 that calls can terminate at the PSTN (18) or to the computer network through RAS (26). Inherently a public switch providing access to the PSTN is a class 5 circuit switch.

9. Referring to claim 13, 14, 15, 34 and 35, Gregory teaches the method described in reference to claims 1, 12 and 23 above and also teaches that the computer network can be

Art Unit: 2663

accessed through other types of connections such as a T1 trunk, PRI interface or a public or private packet network such as Frame Relay or ATM.

10. Referring to claims 16 and 36, Gregory teaches the method described in reference to claims 1 and 23 above and also clearly teaches that in North America a DLC commonly uses a 1.544 Mbps T1 channel that provides 24 channels of voice grade circuits over a single copper connection (column 3, lines 30-32).

11. Referring to claims 17 and 37, Gregory teaches the method described in reference to claims 1 and 23 above and also clearly teaches that after recognizing the redirect signal, the redirect repeater inserts messages to send to the PSTN switch to indicate to the switch that the redirect repeater will redirect the telephone call to the computer network. The inserted messages inform the switch and allow the switch to maintain call record information related to the status of the telephone call (column 5, lines 21-27).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5-9, 18, 20-22, 30, 31 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory in view of Deschaine et al., U.S. Patent 6,327,258, hereinafter Deschaine.

Art Unit: 2663

14. Referring to claims 5-9, 30, 31, 39 and 40, Gregory teaches the method described in reference to claims 1 and 23 above with the possible exception of a first protocol and a second protocol, translating the signaling message from the first to the second protocol and then forwarding it to the appropriate destinations. Deschaine discloses a method comprising, first protocol (i.e. col. 4, ll. 32-33, SS7) and second protocol (i.e. col. 5, ll. 10-12, Q.931), translating the signaling message from the first to second protocol and forward to appropriate destinations (i.e. col. 5, ll. 9-12, SS7 signaling is converted to Q.931 for use over standard interface and network terminator 54 provides the signal interface). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to convert the protocol transmitted by Gregory to standard signaling message over standard interface as taught by Deschaine. One of ordinary skill in the art would have been motivated to do this because the use of standards allows for interoperability among many diverse components.

15. Referring to claims 18 and 38, Gregory teaches the method described in reference to claims 1 and 23 above with the possible exception that the call information is selected from the group consisting of start time stamp, end time stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B-channel, outbound B-channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification. However, Deschaine shows that the system includes management information (i.e. fig. 5, 50). start time stamp, end time stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B-channel, outbound B-channel, inbound circuit identification code, outbound circuit identification code, inbound node

Art Unit: 2663

identification, and outbound node identification are well known in the art in the area of telecommunication routing. Therefore, it would have been obvious to an ordinary person skilled in the art to include selecting from this group with the method and apparatus of Gregory. The motivation is to allow the user to use another network that is available in order to reduce congestion of the telephone network.

16. Referring to claims 20-22, Gregory teaches the method described in reference to claim 19 above with the possible exception of translating a first protocol to a second protocol. Deschaine discloses a router comprising receiving setup information of first protocol (i.e. col. 5, ll. 22-53, received SS7 message), determine call type (i.e. col. 5, ll. 22-25), for normal calls, it's forwarded (i.e. col. 5, ll. 26-35), translating to second protocol for second call type (i.e. col. 5, ll. 6-11, signaling between line access switching end office switch and STP are done using standard signaling message Q.931 which are converted and forwarded from original signaling messages), controlling switch ATM switch (i.e. col. 6, ll. 25-54, EO uses master controller to control routing and inform the ATM switch for ATM network 46). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the router taught by Deschaine in the system of Gregory. One of ordinary skill in the art would have been motivated to this in order to avoid congestion on a PSTN caused by long hold times of Internet calls (Deschaine, column 1, line 66 - column 2, line 2).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2663

- a. Allen Jr. et al., U.S. Patent 6,169,735, teaches an ATM-based distributed virtual tandem switching system that applies to Internet services providers. The T-IWF provides an ideal place to implement a modem pool that terminates the dial up connections and converts them to ATM connections (column 16, line 55 - column 17, line 8).
- b. Stahl et al., U.S. Patent 6,603,850, teaches that GR303 and SS7 are interchangeable CO Control Protocols.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 703-305-6531. The examiner can normally be reached on M-Th 7:00-4:30, alternate F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Keith M. George
10 June 2004



CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 6/14/04